Coaxial

Matching Pad

UNMP-5075-33+

50/75Ω DC to 3000 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF779

Connectors	Model
75ΩM-N	UNMP-5075-33+
50ΩF-N	

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-45°C to 100°C
Storage Temperature	-55°C to 100°C
Input Power	0.5W

Permanent damage may occur if any of these limits are exceeded.

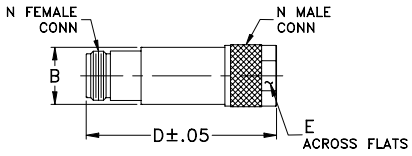
Features

- minimum loss pad
- wideband coverage, DC to 3000 MHz
- excellent VSWR
- rugged unibody construction
- off-the-shelf availability
- very low cost

Applications

- impedance matching

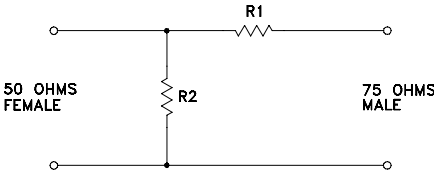
Outline Drawing



Outline Dimensions (inch / mm)

B	D	E	wt
.68	2.11	.718	grams
17.27	53.59	18.24	72.5

Electrical Schematic



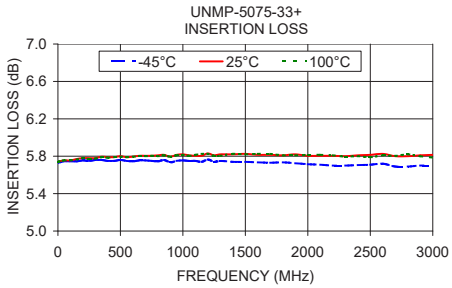
Electrical Specifications at 25°C

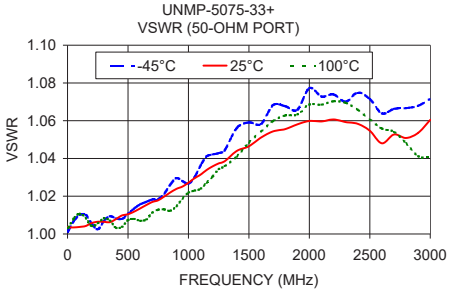
Parameter		Condition (MHz)	Min.	Typ.	Max.	Unit
Frequency Range			DC	—	3000	MHz
Attenuation[1]	Nominal	DC - 3000	—	5.7	—	dB
	Flatness[2]	DC - 3000	—	±0.15	—	
		DC - 100	—	—	0.2	
		100 - 1000	—	—	0.3	
		1000 - 3000	—	—	0.4	
VSWR		DC - 100	—	—	1.10	:1
		100 - 1000	—	—	1.10	
		1000 - 3000	—	—	1.20	
Input Power		DC - 3000	—	—	0.35	W

1. Attenuation varies by 0.3 dB max. over temperature
2. Flatness= variation over band divided by 2

Typical Performance Data

Frequency (MHz)	Attenuation (dB)	VSWR (:1)	
		50 Ω	75 Ω
0.30	5.74	1.00	1.00
5.00	5.74	1.00	1.00
10.00	5.75	1.00	1.01
50.00	5.76	1.00	1.01
100.00	5.76	1.00	1.01
300.00	5.78	1.01	1.01
500.00	5.80	1.01	1.01
800.00	5.81	1.02	1.02
1000.00	5.82	1.03	1.03
1200.00	5.83	1.04	1.04
1500.00	5.83	1.05	1.05
1800.00	5.81	1.06	1.05
2000.00	5.81	1.06	1.06
2600.00	5.83	1.05	1.08
3000.00	5.82	1.06	1.09





Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Matching Pad 50Ω/75Ω, N-Type UNMP-5075-33+

Typical Performance Data

TEST CONDITIONS: INPUT POWER = -10dBm @Temperature = +25°C

FREQUENCY (MHz)	ATTENUATION (dB)	50Ω VSWR (:1)	75Ω VSWR (:1)
0.3	5.74	1.00	1.00
1.0	5.74	1.00	1.00
5.0	5.74	1.00	1.00
10.0	5.75	1.00	1.01
50.0	5.76	1.00	1.01
100.0	5.76	1.00	1.01
150.0	5.77	1.00	1.01
200.0	5.78	1.01	1.01
250.0	5.78	1.01	1.01
300.0	5.78	1.01	1.01
350.0	5.80	1.01	1.01
400.0	5.79	1.01	1.01
450.0	5.79	1.01	1.01
500.0	5.80	1.01	1.01
550.0	5.79	1.01	1.01
600.0	5.80	1.01	1.01
650.0	5.81	1.02	1.02
700.0	5.81	1.02	1.02
750.0	5.81	1.02	1.02
800.0	5.81	1.02	1.02
850.0	5.82	1.02	1.02
900.0	5.80	1.02	1.02
950.0	5.82	1.03	1.03
1000.0	5.82	1.03	1.03
1050.0	5.81	1.03	1.03
1100.0	5.81	1.03	1.03
1150.0	5.81	1.03	1.03
1200.0	5.83	1.04	1.04
1250.0	5.81	1.04	1.04
1300.0	5.82	1.04	1.04
1400.0	5.82	1.04	1.04
1500.0	5.83	1.05	1.05
1600.0	5.82	1.05	1.05
1700.0	5.82	1.05	1.05
1800.0	5.81	1.06	1.05
1900.0	5.82	1.06	1.06
2000.0	5.81	1.06	1.06
2100.0	5.81	1.06	1.07
2200.0	5.81	1.06	1.07
2300.0	5.80	1.06	1.08
2400.0	5.81	1.06	1.08
2500.0	5.82	1.05	1.08
2600.0	5.83	1.05	1.08
2700.0	5.80	1.05	1.08
2800.0	5.80	1.05	1.09
2900.0	5.81	1.05	1.09
3000.0	5.82	1.06	1.09

Typical Performance Data

TEST CONDITIONS: INPUT POWER = -10dBm @Temperature = -45°C

FREQUENCY (MHz)	ATTENUATION (dB)	50Ω VSWR (:1)	75Ω VSWR (:1)
0.3	5.73	1.00	1.04
1.0	5.74	1.00	1.04
5.0	5.74	1.00	1.04
10.0	5.74	1.00	1.04
50.0	5.75	1.01	1.06
100.0	5.75	1.01	1.07
150.0	5.75	1.01	1.05
200.0	5.76	1.01	1.04
250.0	5.75	1.00	1.06
300.0	5.76	1.01	1.06
350.0	5.76	1.01	1.05
400.0	5.75	1.01	1.04
450.0	5.75	1.01	1.03
500.0	5.76	1.01	1.04
550.0	5.75	1.01	1.04
600.0	5.75	1.02	1.04
650.0	5.76	1.02	1.02
700.0	5.76	1.02	1.02
750.0	5.75	1.02	1.04
800.0	5.75	1.02	1.04
850.0	5.76	1.03	1.04
900.0	5.74	1.03	1.04
950.0	5.75	1.03	1.05
1000.0	5.76	1.03	1.04
1050.0	5.75	1.03	1.05
1100.0	5.75	1.04	1.06
1150.0	5.74	1.04	1.06
1200.0	5.77	1.04	1.05
1250.0	5.74	1.04	1.05
1300.0	5.75	1.04	1.06
1400.0	5.74	1.06	1.07
1500.0	5.74	1.06	1.07
1600.0	5.74	1.06	1.08
1700.0	5.73	1.07	1.07
1800.0	5.74	1.07	1.07
1900.0	5.73	1.07	1.03
2000.0	5.72	1.08	1.01
2100.0	5.71	1.07	1.04
2200.0	5.70	1.07	1.06
2300.0	5.70	1.07	1.10
2400.0	5.71	1.07	1.10
2500.0	5.71	1.07	1.12
2600.0	5.72	1.06	1.11
2700.0	5.69	1.07	1.13
2800.0	5.69	1.07	1.13
2900.0	5.70	1.07	1.15
3000.0	5.70	1.07	1.15

Typical Performance Data

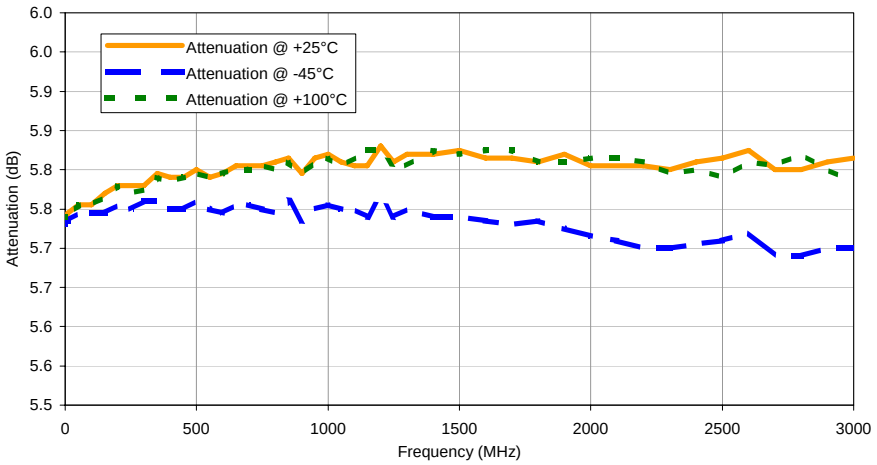
TEST CONDITIONS: INPUT POWER = -10dBm @Temperature = +100°C

FREQUENCY (MHz)	ATTENUATION (dB)	50Ω VSWR (:1)	75Ω VSWR (:1)
0.3	5.74	1.00	1.00
1.0	5.74	1.00	1.00
5.0	5.74	1.00	1.00
10.0	5.75	1.00	1.01
50.0	5.76	1.01	1.02
100.0	5.76	1.01	1.03
150.0	5.77	1.01	1.03
200.0	5.78	1.00	1.02
250.0	5.77	1.01	1.01
300.0	5.78	1.01	1.03
350.0	5.79	1.01	1.04
400.0	5.79	1.00	1.03
450.0	5.79	1.00	1.02
500.0	5.80	1.01	1.03
550.0	5.79	1.01	1.03
600.0	5.80	1.01	1.02
650.0	5.80	1.01	1.01
700.0	5.80	1.01	1.02
750.0	5.81	1.01	1.02
800.0	5.80	1.01	1.02
850.0	5.81	1.01	1.03
900.0	5.80	1.01	1.03
950.0	5.81	1.02	1.03
1000.0	5.82	1.02	1.05
1050.0	5.81	1.02	1.05
1100.0	5.82	1.02	1.06
1150.0	5.83	1.03	1.06
1200.0	5.83	1.03	1.06
1250.0	5.81	1.03	1.06
1300.0	5.81	1.04	1.06
1400.0	5.83	1.04	1.05
1500.0	5.82	1.05	1.03
1600.0	5.83	1.05	1.02
1700.0	5.83	1.06	1.03
1800.0	5.81	1.06	1.05
1900.0	5.81	1.06	1.08
2000.0	5.82	1.07	1.08
2100.0	5.82	1.07	1.10
2200.0	5.81	1.07	1.10
2300.0	5.80	1.07	1.10
2400.0	5.80	1.07	1.10
2500.0	5.79	1.06	1.10
2600.0	5.81	1.06	1.08
2700.0	5.81	1.05	1.08
2800.0	5.82	1.05	1.08
2900.0	5.80	1.04	1.07
3000.0	5.79	1.04	1.04

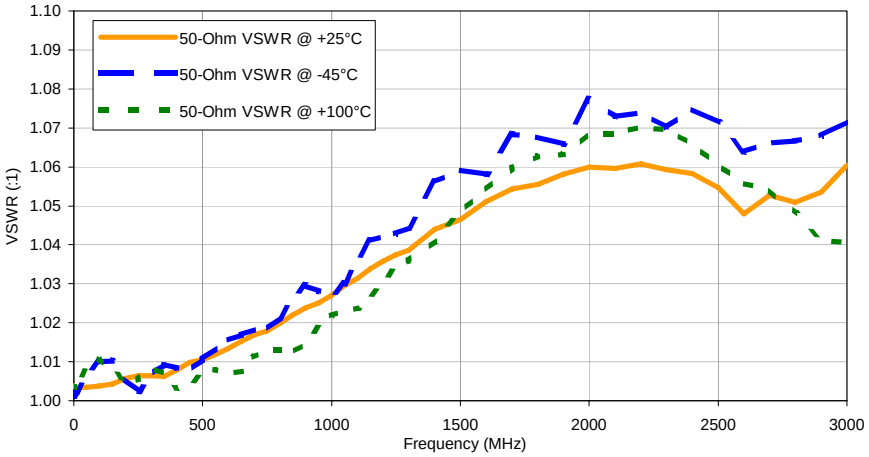
Matching Pad 50Ω/75Ω, N-Type UNMP-5075-33+

Typical Performance Curves

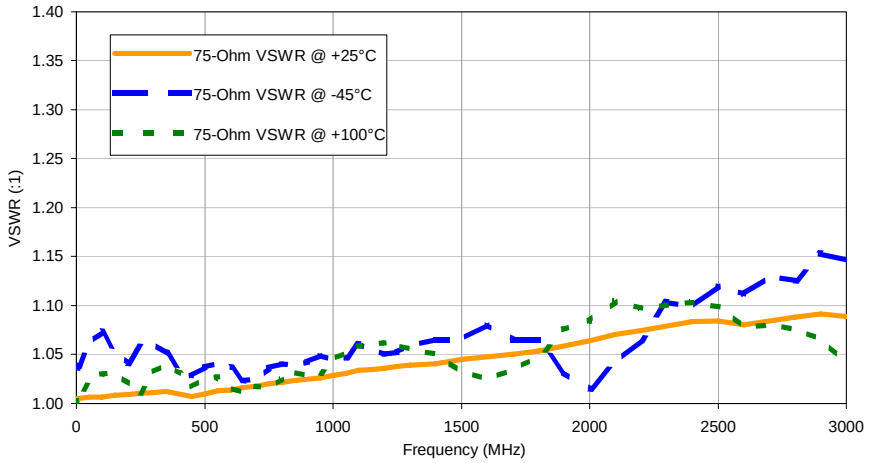
Attenuation vs. Frequency & Temperature



50-Ohm VSWR vs. Frequency & Temperature



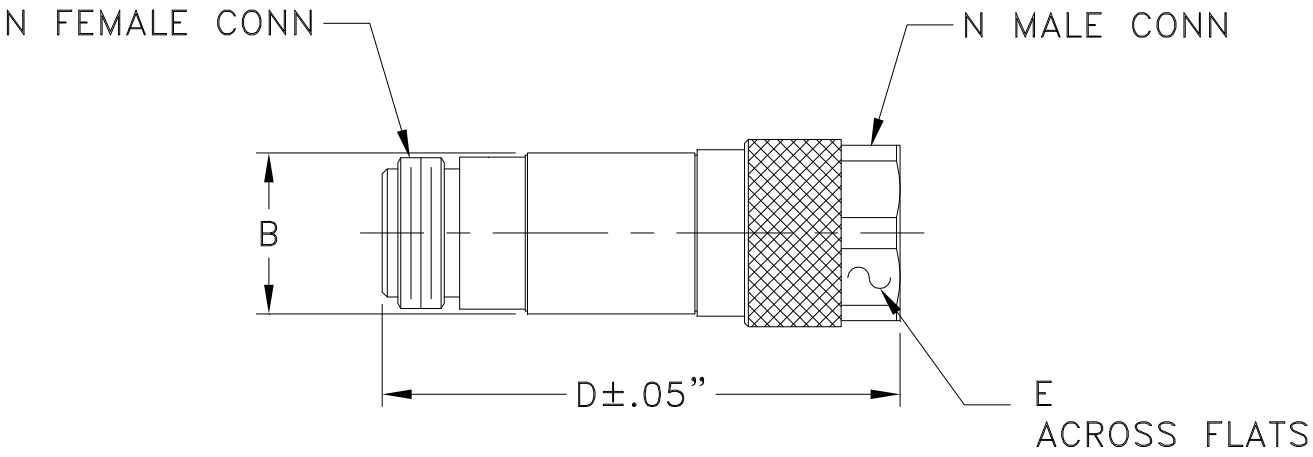
75-Ohm VSWR vs. Frequency & Temperature



Case Style FF

Outline Dimensions

FF779



CASE #.	A	B	C	D	E	WT GRAMS
FF779	-- --	.71 (18.03)	-- --	2.11 (53.59)	.718 (18.24)	72.5

Dimensions are in inches (mm). Tolerances: 2Pl. +.05/-.04; 3Pl. ± .030

Notes:

1. Case material: Brass.
2. Case finish: Nickel plate.

Mini-Circuits

Environmental Specifications **ENV28T6**

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-45° to 100° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I